RAW SEQUENCE LISTING

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Application Serial Number: 10 712,533 A

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RAW SEQUENCE LISTING   DATE: 11/22/2004
PATENT APPLICATION: US/10/712,533A   TIME: 11:12:29

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Output Set: N:\CRF4\11222004\J712533A.raw

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   5 <110> APPLICANT: Institut Pasteur
   9 <120> TITLE OF INVENTION: PLASMODIUM FALCIPARUM ANTIGENS AND VACCINE AND DIAGNOSTIC
USES THEREOF
  13 <130> FILE REFERENCE: 000466-0035
C--> 17 <140> CURRENT APPLICATION NUMBER: US/10/712,533A
C--> 17 <141> CURRENT FILING DATE: 2003-11-14
  17 <150> PRIOR APPLICATION NUMBER: CA 2,345,206
  19 <151> PRIOR FILING DATE: 2001-05-16
  23 <150> PRIOR APPLICATION NUMBER: CA 2,346,968
  25 <151> PRIOR FILING DATE: 2001-05-23
  29 <160> NUMBER OF SEQ ID NOS: 18
  33 <170> SOFTWARE: PatentIn version 3.1
  37 <210> SEQ ID NO: 1
  39 <211> LENGTH: 192
  41 <212> TYPE: DNA
  43 <213> ORGANISM: Plasmodium falciparum
  47 <400> SEQUENCE: 1
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  50 aatgttataa aaagtgataa taaaaatgtt ataaaaagtg ataataaaaa tgattataaa    120
  52 aagtgtaata aaaatgttat aaaaagtgat aataaaaatg ttataaaaag tgataataaa    180
  54 aatgtggaat tc                                                        192
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  59 <211> LENGTH: 351
  61 <212> TYPE: DNA
  63 <213> ORGANISM: Plasmodium falciparum
  67 <400> SEQUENCE: 2
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  70 agtagagatg ataataatag tctctctaat agcgtagata tcaaagtaa tgttttaaat    120
  72 agagaagatc ctattgcttc tgaaactgaa gttgtaagtg aacctgagga ttcaagtagg    180
  74 ataatgacta cagaagttcc aagtactact gtaaaacccc ctgatgaaaa acgatctgaa    240
  76 gaagtaggag aaaaagaagc taaagaaatt aaagtagaac ctgttgtacc aagagccatt    300
  78 ggagaaccaa tggaaaattc tgtgagcgta cagtcccctc ctaaggaatt c             351
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  83 <211> LENGTH: 64
  85 <212> TYPE: PRT
  87 <213> ORGANISM: Plasmodium falciparum
  91 <400> SEQUENCE: 3
  93 Glu Phe His Met His Asp Tyr Ile Tyr Asp Asp Arg Ile Tyr Asn Asn
  94 1               5                   10                  15
  97 Asp Lys Glu Lys Asn Val·Ile Lys Ser Asp Asn Lys Asn Val Ile Lys
  98             20                  25                  30
 101 Ser Asp Asn Lys Asn Asp Tyr Lys Lys Cys Asn Lys Asn Val Ile Lys
 102         35                  40                  45
 105 Ser Asp Asn Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Glu Phe
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113 <212> TYPE: PRT
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125 Val Val Glu Asn Ser Arg Asp Asp Asn Asn Ser Leu Ser Asn Ser Val
126             20                  25                  30.
129 Asp Asn Gln Ser Asn Val Leu Asn Arg Glu Asp Pro Ile Ala Ser Glu
130         35                  40                  45
133 Thr Glu Val Val Ser Glu Pro Glu Asp Ser Ser Arg Ile Met Thr Thr
134     50                  55                  60
137 Glu Val Pro Ser Thr Thr Val Lys Pro Pro Asp Glu Lys Arg Ser Glu
138 65                  70                  75                  80
141 Glu Val Gly Glu Lys Glu Ala Lys Glu Ile Lys Val Glu Pro Val Val
142             85                  90                  95
145 Pro Arg Ala Ile Gly Glu Pro Met Glu Asn Ser Val Ser Val Gln Ser
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149 Pro Pro Lys Glu Phe
150         115
153 <210> SEQ ID NO: 5
155 <211> LENGTH: 5
157 <212> TYPE: PRT
159 <213> ORGANISM: Plasmodium falciparum
163 <400> SEQUENCE: 5
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171 <211> LENGTH: 5
173 <212> TYPE: PRT
175 <213> ORGANISM: Plasmodium falciparum
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182 1               5
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187 <211> LENGTH: 6
189 <212> TYPE: PRT
191 <213> ORGANISM: Plasmodium falciparum
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198 1               5
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203 <211> LENGTH: 7
205 <212> TYPE: PRT
207 <213> ORGANISM: Plasmodium falciparum
211 <400> SEQUENCE: 8
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214 1                  5
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219 <211> LENGTH: 1524
221 <212> TYPE: DNA
223 <213> ORGANISM: Plasmodium falciparum
227 <220> FEATURE:
229 <221> NAME/KEY: CDS
231 <222> LOCATION: (1)..(1524)
233 <223> OTHER INFORMATION:
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238 atg aag acg aca aaa gaa aat gac aat aat aac ata gta cat tat gta        48
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240 1               5                   10                  15
242 gat tgg ata aac cag att ttt aaa aag aat tct tta caa tgt gat tta        96
243 Asp Trp Ile Asn Gln Ile Phe Lys Lys Asn Ser Leu Gln Cys Asp Leu
244               20                  25                  30
246 tat ttt ttg gat gac aac aaa gaa aaa gat gtt agt aag aaa aga aaa       144
247 Tyr Phe Leu Asp Asp Asn Lys Glu Lys Asp Val Ser Lys Lys Arg Lys
248           35                  40                  45
250 gct caa ttg aag gat gaa tat gat aat ata tca agg agc aaa gaa aat       192
251 Ala Gln Leu Lys Asp Glu Tyr Asp Asn Ile Ser Arg Ser Lys Glu Asn
252       50                  55                  60
254 att aat aat tcc aaa aaa ata aaa aat gaa tta agt ata aaa gat aat       240
255 Ile Asn Asn Ser Lys Lys Ile Lys Asn Glu Leu Ser Ile Lys Asp Asn
256 65                  70                  75                  80
258 atg cac gat tac ata tat gat gat cgt atc tac aat aat gat aaa gag       288
259 Met His Asp Tyr Ile Tyr Asp Asp Arg Ile Tyr Asn Asn Asp Lys Glu
260               85                  90                  95
262 aaa aat gtt ata aaa agt gat aat aaa aat gtt ata aaa agt gat aat       336
263 Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Ile Lys Ser Asp Asn
264               100                 105                 110
266 aaa aat gat tat aaa aag tgt aat aaa aat gtt ata aaa agt gat aat       384
267 Lys Asn Asp Tyr Lys Lys Cys Asn Lys Asn Val Ile Lys Ser Asp Asn
268           115                 120                 125
270 aaa aat gtt ata aaa agt gat aat aaa aat gtt ata aaa agt gat aat       432
271 Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Ile Lys Ser Asp Asn
272       130                 135                 140
274 aaa aat gtt ata aaa agt gat tat aaa agt gat gat aga aat gct tgt       480
275 Lys Asn Val Ile Lys Ser Asp Tyr Lys Ser Asp Asp Arg Asn Ala Cys
276 145                 150                 155                 160
278 gat att tat aaa agt aat aaa aaa aat gtt cct gat aat tgc cat ata       528
279 Asp Ile Tyr Lys Ser Asn Lys Lys Asn Val Pro Asp Asn Cys His Ile
280               165                 170                 175
282 tat gat gat aat agt tca gtt gaa aat tta gat gga aaa aat aaa tta       576
283 Tyr Asp Asp Asn Ser Ser Val Glu Asn Leu Asp Gly Lys Asn Lys Leu
284               180                 185                 190
286 aat aat ata agg aac ata cat aat gat aac tca tct tca tgc gat ata       624
287 Asn Asn Ile Arg Asn Ile His Asn Asp Asn Ser Ser Ser Cys Asp Ile
288           195                 200                 205
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290 tcc gat ata aaa agt gaa gat gaa tat ata gaa cca tat gaa aaa aag    672
291 Ser Asp Ile Lys Ser Glu Asp Glu Tyr Ile Glu Pro Tyr Glu Lys Lys
292     210             215             220
294 aat gaa gaa aat ata aat gaa tat aag aat aag aaa aat ata gcc aat    720
295 Asn Glu Glu Asn Ile Asn Glu Tyr Lys Asn Lys Lys Asn Ile Ala Asn
296 225             230             235             240
298 gaa aat ata aaa gaa gga aag agt tca att tat aat gat gaa cat aat    768
299 Glu Asn Ile Lys Glu Gly Lys Ser Ser Ile Tyr Asn Asp Glu His Asn
300             245             250             255
302 tat aat tca tta tta tat aat tct tgt aat ggt gaa ata agt aag atc    816
303 Tyr Asn Ser Leu Leu Tyr Asn Ser Cys Asn Gly Glu Ile Ser Lys Ile
304             260             265             270
306 aac aaa ata agt agt cat aat aat att gat aat aat atg gat aat tat    864
307 Asn Lys Ile Ser Ser His Asn Asn Ile Asp Asn Asn Met Asp Asn Tyr
308             275             280             285
310 aat acg ttt gca aat gtg aat aat ttt ata ata tat tcc tca gat gat    912
311 Asn Thr Phe Ala Asn Val Asn Asn Phe Ile Ile Tyr Ser Ser Asp Asp
312     290             295             300
314 gaa gat aat ata tca aat tat tat aat ggt aaa gac gta tta aat gat    960
315 Glu Asp Asn Ile Ser Asn Tyr Tyr Asn Gly Lys Asp Val Leu Asn Asp
316 305             310             315             320
318 gag att atg ttc cct ata aaa ttt aat ttt gaa aaa tta aaa aaa aat    1008
319 Glu Ile Met Phe Pro Ile Lys Phe Asn Phe Glu Lys Leu Lys Lys Asn
320             325             330             335
322 att tat gta ata gag cat ata gac aaa ata tat tat gat aca ttt tta    1056
323 Ile Tyr Val Ile Glu His Ile Asp Lys Ile Tyr Tyr Asp Thr Phe Leu
324             340             345             350
326 aat aaa aat cca agt gaa aaa agt gtt ttt atg aat gat gaa tct act    1104
327 Asn Lys Asn Pro Ser Glu Lys Ser Val Phe Met Asn Asp Glu Ser Thr
328             355             360             365
330 ggt tat ttg aaa aat gat gtg aat gac aaa tgt gtt gtt gat aat ata    1152
331 Gly Tyr Leu Lys Asn Asp Val Asn Asp Lys Cys Val Val Asp Asn Ile
332     370             375             380
334 aat gtt att aat cct tct agt gtg aat acg ttg agt aat att tca aat    1200
335 Asn Val Ile Asn Pro Ser Ser Val Asn Thr Leu Ser Asn Ile Ser Asn
336 385             390             395             400
338 att agg aat gaa aaa ata gaa aat aat aat aag aat gaa aaa tta ata    1248
339 Ile Arg Asn Glu Lys Ile Glu Asn Asn Asn Lys Asn Glu Lys Leu Ile
340             405             410             415
342 aaa tca tat cct aca caa tca aaa aat gtt atg agt aca ttt tcc ttt    1296
343 Lys Ser Tyr Pro Thr Gln Ser Lys Asn Val Met Ser Thr Phe Ser Phe
344             420             425             430
346 tgg aat att gaa aag gag aca ttt ata aca aaa cct ttg tat gca caa    1344
347 Trp Asn Ile Glu Lys Glu Thr Phe Ile Thr Lys Pro Leu Tyr Ala Gln
348             435             440             445
350 aat ttg aga aaa aaa caa ttt agt tta tta gat gaa tct gaa gag atg    1392
351 Asn Leu Arg Lys Lys Gln Phe Ser Leu Leu Asp Glu Ser Glu Glu Met
352     450             455             460
354 ata aga aat tat tca tct aat caa tat tct ata aaa ttt gta cca aga    1440
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355 Ile Arg Asn Tyr Ser Ser Asn Gln Tyr Ser Ile Lys Phe Val Pro Arg
356 465             470             475                 480
358 cat tta tta tat gta atg agt caa gtt gct tct cga tcc ttt ttt gat       1488
359 His Leu Leu Tyr Val Met Ser Gln Val Ala Ser Arg Ser Phe Phe Asp
360                 485             490             495
362 cct tta tat aga aag cag tta ttt ttt cgt tac taa                        1524
363 Pro Leu Tyr Arg Lys Gln Leu Phe Phe Arg Tyr
364             500             505
367 <210> SEQ ID NO: 10
369 <211> LENGTH: 507
371 <212> TYPE: PRT
373 <213> ORGANISM: Plasmodium falciparum
377 <400> SEQUENCE: 10
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383 Asp Trp Ile Asn Gln Ile Phe Lys Lys Asn Ser Leu Gln Cys Asp Leu
384             20              25              30
387 Tyr Phe Leu Asp Asp Asn Lys Glu Lys Asp Val Ser Lys Lys Arg Lys
388         35              40                  45
391 Ala Gln Leu Lys Asp Glu Tyr Asp Asn Ile Ser Arg Ser Lys Glu Asn
392     50              55                  60
395 Ile Asn Asn Ser Lys Lys Ile Lys Asn Glu Leu Ser Ile Lys Asp Asn
396 65              70              75                  80
399 Met His Asp Tyr Ile Tyr Asp Asp Arg Ile Tyr Asn Asn Asp Lys Glu
400             85              90                  95
403 Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Ile Lys Ser Asp Asn
404             100             105             110
407 Lys Asn Asp Tyr Lys Lys Cys Asn Lys Asn Val Ile Lys Ser Asp Asn
408         115             120             125
411 Lys Asn Val Ile Lys Ser Asp Asn Lys Asn Val Ile Lys Ser Asp Asn
412     130             135             140
415 Lys Asn Val Ile Lys Ser Asp Tyr Lys Ser Asp Asp Arg Asn Ala Cys
416 145             150             155             160
419 Asp Ile Tyr Lys Ser Asn Lys Lys Asn Val Pro Asp Asn Cys His Ile
420             165             170             175
423 Tyr Asp Asp Asn Ser Ser Val Glu Asn Leu Asp Gly Lys Asn Lys Leu
424             180             185             190
427 Asn Asn Ile Arg Asn Ile His Asn Asp Asn Ser Ser Ser Cys Asp Ile
428         195             200             205
431 Ser Asp Ile Lys Ser Glu Asp Glu Tyr Ile Glu Pro Tyr Glu Lys Lys
432     210             215             220
435 Asn Glu Glu Asn Ile Asn Glu Tyr Lys Asn Lys Lys Asn Ile Ala Asn
436 225             230             235             240
439 Glu Asn Ile Lys Glu Gly Lys Ser Ser Ile Tyr Asn Asp Glu His Asn
440             245             250             255
443 Tyr Asn Ser Leu Leu Tyr Asn Ser Cys Asn Gly Glu Ile Ser Lys Ile
444             260             265             270
447 Asn Lys Ile Ser Ser His Asn Asn Ile Asp Asn Asn Met Asp Asn Tyr
448         275             280             285
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VERIFICATION SUMMARY   DATE: 11/22/2004
PATENT APPLICATION: **US/10/712,533A**   TIME: 11:12:30

Input Set : **A:\02356.0086 SEQUENCE LISTING.txt**
Output Set: **N:\CRF4\11222004\J712533A.raw**

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L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:237 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:9,Line#:233
L:537 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:11,Line#:523
L:547 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:11,Line#:533
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